FACT SHEET FOR NPDES PERMIT WA0037478
WESTFARM FOODS

2/14/2005

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INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 RCW which defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the state include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix C--Response to Comments.

GENERAL INFORMATION	
Applicant:	WestFarm Foods
Facility Name and Address:	67 Southwest Chehalis Avenue Chehalis, WA 98532
Type of Facility:	Food and Dairy Products
SIC Code:	2023
Discharge Location	Waterbody name: Chehalis River Latitude: 46° 39' 41" N Longitude: 122° 59' 03" W Discharge to Ground Latitude: 46° 39’ 30” N Longitude: 122° 59’ 43” W Sections 35 and 36 Township 14N Range 3W, Willamette Meridian
Water Body ID Number:	WA-23-1020

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

The cheese plant was built in 1947 and closed in 1995. The powder facility and the treatment plant were built in 1983. This is an EPA minor facility because it is not included in the list of major facilities in the EPA delegation agreement.

INDUSTRIAL PROCESS

This plant receives whole milk and processes it to make powder products and cream. The cream is transferred to other plants. The facility also processes rice sweetener. The capacity of the plant is 3,200,000 lbs/day of whole milk. The rice sweetener production is at a rate varying from 65,000 lbs/week to 195,000 lbs/week.

There are no current plans to change the design capacity of the plant.

Production varies with the market and supply of milk.

When in full production, the plant employs about 40 people who work seven days per week on three 8-hour shifts.

The only chemicals stored on site are those caustics and acids used to clean up the process equipment. Although not listed on the application, refrigerant ammonia is stored here.

The plant both uses and produces water. Water from the City of Chehalis is used for cooling and powder production. The evaporation process for powder production generates condensate (mostly wasted) when operating. Cooling condensate and process waters generate an average 0.19 million gallons per day of wastewater.

Wastewater Treatment:

Wastewater treatment is accomplished in series by the following units:

Equalization tanks that store peak discharges to provide steady flow through the plant.

A roughing filter (trickling filter) which provides initial soluble BOD reduction to the wastewater.

An activated sludge unit, “Orbal Aeration Basin,” which aerates and digests organic material in the wastewater.

A clarifier that settles out solids prior to discharge and, incidentally, serves as a place to provide chlorination.

A flow meter and sampling unit.

A final sand/anthracite filter.

A diffuser in the Chehalis River or;

An irrigation system across the Chehalis River.

Recirculation pumps are provided to return some discharge to the roughing filter to maintain a uniform loading to the filter and to recirculate activated sludge from the clarifier to the activated sludge unit. A

diversion pipe is located on the outfall line so that effluent can be diverted to the City of Chehalis Wastewater Treatment Plant in emergencies.

Sludge from the clarifier is wasted to a sludge tank. Sludge from this tank is trucked to land disposal which is regulated by the Lewis County Health Department.

GROUND WATER

The ground disposal site is on the flood plain of the Chehalis River, situated between the foothills of the Cascades to the east and the hills of the Coast Range to the west. The geology of the area is Tertiary Rock overlain by quaternary glaciofluvial sand and gravel deposits and loess deposits and capped by recent alluvium (silts, sands, and gravels). There is no regular stratigraphic sequence. In general, the site is characterized by silts and clays over sands and gravels. It is these sands and gravels that form the aquifer that will receive the wastewater application. The flow in this aquifer can be said to flow directly toward the river. Studies done by the Department show that ground water quality shows negligible nitrate and pesticide content. pH levels in four wells tested varied from 6.74 to 8.18. Monitoring under this permit will establish better information about groundwater.

DISCHARGE OUTFALLS

Effluent from this plant is discharged to the Chehalis River through a diffuser (Outfall 001). The mixing zone from this diffuser overlaps the mixing zone from the diffuser of the City of Chehalis Wastewater Treatment Plant. Effluent discharged to ground will be distributed by a spray irrigation system from a storage lagoon (Outfall 002) as described in the Irrigation and Crop Management Plan, Special Condition S8.

PERMIT STATUS

The previous permit for this facility was issued on June 12, 2000 and modified and corrected with the final correction on September 10, 2002. The previous permit placed effluent limitations on flow, biochemical oxygen demand, total suspended solids, ammonia, pH, fecal coliform bacteria, phosphorus, and total chlorine residual.

An application for permit renewal was submitted to the Department on march 31, 2004 and accepted by the Department on .

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on April 8, 1998.

During the history of the previous permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) submitted to the Department and inspections conducted by the Department.

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge is characterized in the permit application for the following regulated parameters:

Table 1: Wastewater Characterization

Parameter	Average Measure	Maximum Measure
Flow, MGD	.425	0.556
pH, S.U.	6.9	8.2
Biochemical Oxygen Demand$_5$, mg/l	12	24
Total Suspended Solids, mg/l	14.4	27
Fecal Coliform, col/100 ml	124	360
Ammonia, mg/l	2.65	4.6
Chlorine Residual, mg/l	Non-detect	Non-detect

SEPA DETERMINATION

SEPA review is not required for the disposal of wastewater to ground because of the exemption of the Department projects in WAC 179-11-855(1).

PROPOSED PERMIT LIMITATIONS

Federal and state regulations require that effluent limitations set forth in a NPDES permit or a state permit must be either technology- or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the State of Washington were determined and included in this permit. Ecology does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department.

DESIGN CRITERIA

In accordance with WAC 173-220-150 (1)(g), flows or waste loadings shall not exceed approved design criteria.

The design criteria for this treatment facility are taken from Engineering Report Special Products Inc. Springfield, Missouri 1982, and are as follows:

Table 2: Design Standards for the WestFarm Foods WWTP

Parameter	Maximum Design Quantity	Average Design Quantity
Monthly average flow (max. month)	0.38 MGD	0.282 MGD
BOD_5 influent loading	7170 lbs/day	4815 lbs/day
TSS influent loading	2745 lbs/day	1680 lbs/day

TECHNOLOGY-BASED EFFLUENT LIMITATIONS, DISCHARGE TO SURFACE

In this proposed permit, there are both categorical mass limits based on daily production and a further limit on the cumulative mass of these individual limits. The discrete categorical limits allow the permit to require AKART regardless of variation in production or products produced. The cumulative limits, the sum of the discrete categorical mass limits, were included in the Consent Decree to limit the total mass of pollutants discharged.

The permittee, in the process of writing the previous permit, proposed to produce twenty eight products that could be covered by categorical limits in the Federal Register. The following table summarizes thes e products and the applicable categorical limits used in the permit limitations

AKART for wastewater from food processing plants is included in the federal regulations 40 CFR 405 through 40 CFR 407. The applicable portions of the regulations for limits for the products listed in the permit application are as follows:

FEDERAL REGISTER

Classification	Product	Reference
Fluid Products	Whole Milk	40 CFR 405.22
Cultured Products	Yoghurt Sour Cream	40 CFR 405.32
Butter	Anhydrous Milkfat Butter Butter Blends	40 CFR 405.42
Cottage Cheese and Cultured Cream Cheese	Cottage Cheese Cultured Cream Cheese	40 CFR 405.52
Fluid Mix for Ice Cream and Other Frozen Desserts	Fluid Mix for Ice Cream and Other Frozen Desserts	40 CFR 405.72
Condensed milk	Condensed milk Lactose Caseinate Milk Calcium	40 CFR 405.92
Dry milk	Whole Milk Powder Dry Buttermilk Skim Milk Powder Coffee Sweetener and Whitener	40 CFR 405.102

Classification	Product	Reference
Condensed Whey	Condensed Whey	40 CFR 405.112
Dry Whey	Dry Whey WPC-34 Whey Permeate	40 CFR 405.122
Wheat Starch and Gluten	Corn Sweetener Rice Sweetener	40 CFR 406.12
Apple Juice	Apple Juice	40 CFR 407.12
Citrus Products	Citrus Juice	40 CFR 407.32
Dehydrated Potato Products	Dehydrated Potato Products	40 CFR 407.52
Canned and Preserved Fruits	Other Fruit Juices	40 CFR 407.62
Canned and Preserved Vegetables	Carrot Juice	40 CFR 407.72

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL) as described below.

The stated limits for ammonia, pH, fecal coliforms, and chlorine residual are derived from the surface water quality regulations and have been achieved historically, making them AKART.

WATER QUALITY STUDY (TOTAL MAXIMUM DAILY LOAD):

Beginning in 1991, the upper Chehalis River basin from the headwaters to Porter was studied by the Department to establish a Total Maximum Daily Load (TMDL) for pollutants of concern. Water quality data was collected from July to October 1991, and May to September 1992 (Ecology Publication Number 00-10-018) for the dissolved oxygen and ammonia and to allocate the load among the dischargers. This TMDL was approved by the EPA and was implemented in 1996.

No non-point source Load Allocation (LA) above background are provided for in the TMDL. This applies to: livestock impacts on the main stem of the Chehalis River and on Salzer and Dillenbaugh Creeks and their tributaries; activities that affect ground water quality where the Chehalis River or its tributaries are down-gradient; storm water runoff from urban areas, clean-up sites, and agricultural activities; poor waste handling activities that result in the discharge of waste to the Centralia Reach or its tributaries.

The major conclusion of the total maximum daily load study as applicable to WestFarm Foods, was that discharge of wastewater containing BOD and ammonia from point sources (including WestFarm Foods) be forbidden between June 1 to September 15. This time period was challenged by the point source dischargers. After negotiations, a settlement agreement was reached that allowed discharge based on river flows. This agreement has been incorporated into a previous permit modification and the proposed

permit. In addition, WestFarm Foods was awarded a certain maximum pollutant mass for discharge to the river.

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the State of Washington.

ANTIDEGRADATION, SURFACE WATER

The State of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has determined from the TMDL study that the ambient water quality does not meet the water quality requirements of WAC 173-201A. This proposed permit incorporates the results of that TMDL study and the subsequent agreements.

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the Ground Water Quality Standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria taken from and defined in Chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 2: Ground Water Quality Criteria, Application to Land Apply WestFarm Foods Chehalis Wastewater, HF Esvalt Engineering, October 1997.

Total Coliform Bacteria	1 colony/100 mL
Total Dissolved Solids	500 mg/L
Chloride	250 mg/L
Sulfate	250 mg/L
Nitrate	10 mg/L
pH	6.5 to 8.5 standard units
Manganese	0.05 mg/L
Total Iron	0.3 mg/L
Toxics	no toxics in toxic amounts

The Department has reviewed existing records and is unable to determine if background water quality is either higher or lower than the criteria given in Chapter 173-200 WAC; therefore, the Department will require monitoring wells and a testing program to determine if any degradation in ground water quality over background is taking place.

PROPOSED EFFLUENT LIMITS FOR IRRIGATION

Parameter	Average Monthly	Daily Maximum
Flow, mgd	0.48	0.60
Biochemical Oxygen Demand, mg/l	60	100
Total Suspended Solids, mg/l	100	200
pH S.U.	6.9	

* taken from Application to Land Apply Darigold Chehalis Treated Wastewater, H.F. Esvelt Engineering, October 1997.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses. The critical condition here is included in the TMDL Study which forbids discharge at specific river flows.

MIXING ZONES

Because of the reasonable potential for pollutants in the proposed discharge to exceed water quality criteria, mixing zones may be authorized. These zones will accommodate the geometric configuration and flow restriction for mixing zones in Chapter 173-201A WAC and are defined as follows:

(i) Not extend in a downstream direction for a distance from the discharge port greater than 300 feet plus the depth of water over the discharge port, or extend upstream for a distance of over 100 feet;

(ii) Not utilize greater than 25 percent of the flow; and

(iii) Not occupy greater than 25 percent of the width of the water body.

The Water Quality Standards (WAC 173-201A-020) specify that "critical conditions may be assumed to be equal to the 7Q10 flow event" for the standards compliance, "unless determined otherwise by the Department." Because the Centralia Reach of the Chehalis River between the Newaukum and the Skookumchuck Rivers is ungaged, use of a 7Q10 for critical flow conditions in this stretch was not

feasible. In addition, this stretch of the river is governed by a special condition that creates two separate DO criteria for semiannual periods and therefore, critical flow conditions must be separately defined for each of the two semiannual periods.

The critical low flow conditions in 1992 created a fortunate situation where critical flow could be evaluated for real time measurements. Therefore, the mainstem Chehalis River critical condition low flows used for modeling were 68 cubic feet per second (cfs) above the Skookumchuck River and 50 cfs below the Newaukum River.

The analysis of the mixing zone is complicated by the fact that the WestFarm Foods outfall is a short distance upstream from the City of Chehalis outfall, which produces an overlapping mixing zone. The Department's Water Quality Standards, Chapter 173-201A, provides for overlapping mixing zones. However, the combined mixing zone cannot be larger than a single dilution zone would allow. The most straightforward calculation is to combine the effluent flows and treat them as one discharge. Fortunately, this is possible for these discharges since the 7Q10 flow in the river is the most stringent requirement in determining available mixing for these discharges.

Since the actual TMDL critical flow is 60.2 cfs for May through October, the dilution factors are:

> Chronic Zone: The most restrictive parameter for the mixing zone allowable under WAC 173-201A-100 is 15.05 cfs, 25 percent of the 7Q10 flow. The combined discharge is 3.58 cfs: Chehalis at 1.73 MGD (2.68 cfs) and WestFarm Foods at 0.6 MDG (0.9 cfs). The dilution ratio (upstream flow to effluent flow) is used to calculate effluent limits. The dilution ratio (DR) is related to the dilution factor (DF), or the inverse of percent effluent, by: DR + 1 = DF. The dilution factor equals 5.20.
>
> Acute Zone: The most restrictive parameter for the mixing zone under WAC 173-201A-100 is 2.5 percent of the 7Q10 flow. Following the same analysis as above (7Q10 = 60.2 cfs; at 2.5 percent = 1.505 cfs; combined discharge = 7.55 cfs; highest daily plant flow during this critical period at Chehalis = 4.29 MGD (6.65 cfs) and WestFarm Foods = 0.6 MGD (0.9 cfs) the dilution factor equals 1.20.

For November through April, the dilution factors were based on the wet season 7Q10 flow of 218.6 cfs. The river velocities for the winter flow are not predicted to increase significantly. Since the velocity of the discharge would still be dominant, the percent of flow was assumed to be the control and used to determine critical chronic and acute dilution factors.

> Chronic Zone: 25 percent of Chehalis River flow equals 54.65 cfs; highest monthly average flow (last three years data) = 3.10 MGD (4.79 cfs); WestFarm Foods design flow = 0.60 MGD, (0.90 cfs); total flow = 5.69 cfs; dilution factor = 1.35.
>
> Acute Zone: 2.5 percent of Chehalis River flow equals 5.465 cfs; highest daily maximum flow (last three years data) = 10.0 MGD (15.5 cfs); WestFarm Foods design flow = 0.60 MGD (0.90 cfs); total flow = 16.4 cfs; dilution factor = 1.35.

DESCRIPTION OF THE RECEIVING WATER

The facility discharges to the Chehalis River which is designated as a Class A receiving water in the vicinity of the outfall. Other nearby point source outfalls include the Chehalis Wastewater treatment plant. Significant nearby non-point sources of pollutants include all sorts of agricultural runoff and runoff from the urban area of the City of Chehalis. Characteristic uses include the following:

> water supply (domestic, industrial, agricultural); stock watering; fish migration; fish and shellfish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing;

boating and aesthetic enjoyment; commerce and navigation. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for this discharge are summarized below:

Fecal Coliforms	100 organisms/100 mL maximum geometric mean
Dissolved Oxygen	8 mg/L minimum
Temperature	18 degrees Celsius maximum or incremental increases above background
pH	6.5 to 8.5 standard units
Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts

WHOLE EFFLUENT TOXICITY

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected by commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response of the organisms. Toxicity tests measure the aggregate toxicity of the whole effluent toxicity (WET) testing.

Toxicity caused by unidentified pollutants is not expected in the effluent from this discharge as determined by the screening criteria given in Chapter 173-205 WAC. Therefore, no WET testing is required in this permit. The Department may require effluent toxicity testing in the future if it receives information that toxicity may be present in this effluent.

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

The Department has determined that the applicant's discharge is unlikely to contain chemicals regulated for human health.

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

The Department has determined through a review of the discharger characteristics and effluent characteristics that this discharge has no reasonable potential to violate the Sediment Management Standards.

MONITORING REQUIREMENTS, DISCHARGE TO GROUND

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, that ground water criteria are not violated, and the effluent limitations are being achieved (WAC 173-216-110). The location of monitoring wells will be determined in the hydrogeological report.

WASTEWATER MONITORING

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

CROP MONITORING

The crop is a critical component in may land application systems and is relied upon for removing nutrients, reducing erosion, and maintaining or increasing infiltration rates. Crop monitoring allows a complete mass balance to be calculated to determine the amount of nutrients and salts, which are uptaken by the crop and removed each season.

SOIL MONITORING

Soils support crop growth and a biological community, which removes BOD, and other pollutants that are not removed through treatment prior to application or through crop uptake. Soil monitoring is required to assure that excess nutrients and salts are not residing in the soil column which would be leached to ground water. This testing allows for a more accurate application rate to be determined and minimizes the leaching potential to ground water.

Twice a year sampling was selected as before and after the growing season.

GROUND WATER MONITORING

The monitoring of ground water at the site is required in accordance with the Ground Water Quality Standards, Chapter 173-200 WAC. The Department has determined that this discharge has a potential to pollute the ground water. Therefore the Permittee is required to evaluate the impacts on ground water quality. Monitoring of the ground water at the site boundaries and within the site is an integral component of such an evaluation.

Constituents of Concern:

Constituents of concern are those contaminants, which are discharged, handled or stored on-site by the facility. These include any contaminants, which could potentially impair a beneficial use. These also consist of degradation products or contaminants, which are released or mobilized during chemical reactions in the environment. For WestFarm Foods, these parameters include: total nitrogen (nitrate, total kjeldahl nitrogen), total dissolved solids, and chloride. Total organic carbon, iron, and manganese are also required monitoring parameters since they are contaminants and indicate the presence of anaerobic conditions caused by excessive loading of oxygen demanding substances.

Major Cations and Anions:

A complete chemical characterization of ground water quality is essential when making a determination of the impacts a discharge may have on background water quality. The ions are not necessarily measured to determine compliance, but can provide both the facility and the Department with relatively inexpensive, and high quality information regarding the impacts to the environment. Natural ground water has a distinct chemical composition which is characteristic of the geologic formation. Cations and anions provide a means of identifying background water quality by delineating a signature based on the inorganic constituents. Ionic characterization data can be used to detect water quality changes and trends, which may be attributed to a discharge. Inorganic constituents also provide a check on the reliability of the analyses with a cation/anion balance. Ionic analyses are required to be monitored on a less frequent basis. These analyses provide some of the most meaningful information in terms of evaluating impacts to ground water quality. The ions that are required to be monitored annually in ground water include: calcium, magnesium, potassium, sodium, bicarbonate, carbonate, fluoride and sulfate.

Field Parameters:

Field parameters are analytical methods for ground water parameters, which can be measured in the field. These include static water level, pH, electrical conductivity, temperature, dissolved oxygen and ferrous iron. These measurements serve several purposes. They can be used to verify when effective well purging has occurred and when ground water has stabilized to assure that the ground water sampled is representative of water in the aquifer formation. They can be used as a verification of laboratory measurements and can indicate sample deterioration. Additionally, field parameters are used to detect abnormalities, and they can be indicative of ground water contamination.

Microbiological Parameters:

Wastewater often contains pathogens, such as bacteria, parasites and viruses. Bacteria have typically been used as an indicator of pathogens in water. There are inexpensive and readily available analytical methods for bacteria, which can be performed in the field. Total coliform is used as an indicator of the presence of pathogens.

MONITORING REQUIREMENTS, DISCHARGE TO SURFACE WATER

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

COMPARISON OF SURFACE WATER EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED OCTOBER 29, 1996

Parameter	Existing Limits	Proposed Limits
Flow, Avg. Monthly, mgd	0.48	None
Flow, Max. Daily, mgd	0.60	None
BOD5, Avg. Monthly, lbs/day	75	75
BOD5, Max. Daily, lbs/day	95	95
TSS, Avg. Monthly, lbs/day	70	70 Interim, 75 Final
TSS, Max. Daily, lbs/day	92	92 Interim, 95 Final
Ammonia (N), Avg. Monthly, mg/l	3	3
Ammonia (N), Max. Daily, mg/l	6	6
pH, Avg. Monthly, S.U.	6 to 9	6 to 9
pH, Max. Daily, S.U.	6 to 9	6 to 9
Fecal Coliform, Avg. Monthly, No./100 ml	200	200
Fecal Coliform, Max. Daily, No./100 ml	400	400
Phosphorus, Avg. Monthly, mg/l	Best Management Practices	Best Management Practices
Phosphorus, Max. Daily, mg/l	Best Management Practices	Best Management Practices
Total Residual Chlorine, Avg. Monthly, mg/l	N/A	N/A
Total Residual Chlorine, Max Daily, mg/l	Zero Detectable	Zero Detectable

Flow was eliminated since water is not a pollutant and no purpose is served in this case by limiting flow.

The final limits for TSS were increased in the Consent Decree.

The previous permit did not include ground water limits, so no comparison with existing limits is not possible.

LAB ACCREDITATION

With the exception of certain parameters the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, Accreditation of Environmental Laboratories. The laboratory at this facility is accredited for General Chemistry and Microbiology.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-220-210).

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee update the solid waste plan designed to prevent solid waste from causing pollution of the waters of the state. The plan must be submitted to the local permitting agency for approval, if necessary, and to the Department.

OUTFALL EVALUATION

Proposed permit condition S.9 requires the Permittee to conduct an outfall inspection and submit a report detailing the findings of that inspection. The purpose of the inspection is to determine the condition of the discharge pipe and diffusers and to evaluate the extent of sediment accumulations in the vicinity of the outfall.

TREATMENT SYSTEM OPERATING PLAN

In accordance with state and federal regulations, the Permittee is required to take all reasonable steps to properly operate and maintain the treatment system (40 CFR 122.41(e)) and WAC 173-220-150 (1)(g). An operation and maintenance manual was submitted as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). It has been determined that the implementation of the procedures in the Treatment System Operating Plan is a reasonable measure to ensure compliance with the terms and limitations in the permit.

The treatment system operating plan submitted with the application is accepted.

IRRIGATION AND CROP MANAGEMENT PLANS

The irrigation and crop management plan is required to support the engineering report(s) and operations and maintenance manual. This plan shall include a consideration of wastewater application at agronomic rates and should describe and evaluate various irrigation controls.

GROUND WATER QUALITY EVALUATION (HYDROGEOLOGIC STUDY)

In accordance with WAC 173-200-080, the permit requires the Permittee to prepare and submit a hydrogeologic study for Departmental approval. The hydrogeologic study will be based on soil and hydrogeologic characteristics and be capable of assessing impacts on ground water. The study will be prepared using "Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems," Ecology 1993, and Implementation Guidance for Ground Water Quality Standards, Ecology 1996.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for

Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The Department proposes that this proposed permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES, DISCHARGE TO SURFACE WATER

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

1994. Permit Writer's Manual. Publication Number 92-109

Wright, R.M., and A.J. McDonnell.

1979. In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

1994. Upper Chehalis River Basin Evaluation of Total Maximum Daily Load, Summary Report Ecology Publication No. 94-144

REFERENCES FOR TEXT AND APPENDICES, DISCHARGE TO GROUND

Faulkner, S.P., Patrick Jr., W.H., Gambrell, R.P., May – June 1989. Field Techniques for Measuring Wetland Soil Parameters, Soil Science Society of America Journal, Vol. 53, No. 3.

Washington State Department of Ecology, 1996. Implementation Guidance for the Ground Water Quality Standards, Ecology Publication #96-02.

Washington State University, November 1981. Laboratory Procedures – Soil Testing Laboratory, 38 pp.

APPENDIX A – PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest if this fact sheet.

Public notice of application was published on March 20, 2004, and March 27, 2004, in *The Daily Chronicle* to inform the public that an application had been submitted and to invite comment on the reissuance (or issuance) of this permit.

The Department will publish a Public Notice of Draft (PNOD) on _____ in *The Daily Chronicle* for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copy between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the 30-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least 30 days in advance of the hearing. People expressing an interest in this permit will be mailed and individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or nay other concern that would result from issuance of this permit.

The Department will consider al comments received within 30 days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6285, or by writing to the address listed above.

This permit and fact sheet were written by Gary Anderson.

APPENDIX B--GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART-- An acronym for "all known, available, and reasonable methods of treatment".

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation --The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine--Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Distribution Uniformity—The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Engineering Report--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Major Facility--A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Minor Facility--A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the State of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Responsible Corporate Officer-- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Soil Scientist—An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops, or soils, and have 5, 3, or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Coliform Bacteria--A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

Total Dissolved Solids--That portion of total solids in water or wastewater that passes through a specific filter.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C – RESPONSE TO COMMENTS

Comment 1:

A March 2, 2001, letter to me from Kahle Jennings states: "This TMDL will affect temperature limits in the NPDES permit for WestFarm Foods."

Response 1:

Yes

Comment 2:

A March 2, 2001, letter to me from Kahle Jennings states: However, the land application discharge alternative that WestFarm Foods agreed to in the consent decree negotiated with Ecology for the Dissolved Oxygen TMDL will also meet the requirements of this temperature TMDL.

Response 2:

The fact that the land application discharge alternative was agreed upon as part of the negotiations settling the Dissolved Oxygen TMDL Consent Decree does not mean that temperature will not be monitored. It simply means that the critical period for both dissolved oxygen and temperature are the same. In addition, if effluent is being land applied there is no reason to monitor either dissolved oxygen or temperature at the river outfall. The requirement for riverside monitoring for all parameters is solved by the simple notation "no discharge" on discharge monitoring reports when ever land application is taking place.

Comment 3:

The following language in the TMDL supports Kahle Jennings letter: since the critical period for the dissolved oxygen TMDL and the critical period for the temperature TMDL overlap, restricting temperature for point sources under this temperature to the same period when discharge is allowed under the TMDL for dissolved oxygen will also be protective of river temperatures. (Upper Chehalis River Basin Temperature TMDL, page 26, (Rev. 2001, Publication No. 99-52)

Response 3:

If discharge is directed to the land application site during the critical period, then there is nothing to measure in the receiving water in the river and no samples need be taken. If WestFarm discharges to the river in violation of the consent decree during the critical period then WestFarm should sample the river for compliance with the permit temperature and dissolved oxygen limits.

Comment 4:

Ecology's response toWestFarm's comments on the TMDL (dated March 12, 2001) states:" Ecology determined that it is impractical to assign a single compliance date for all NPDES permittees in the text of the TMDL because the 5 year renewal schedule may not be the same for each one. However, for WestFarm Foods, the compliance date will be January 2008, which is consistent with the dissolved oxygen consent decree.

Response 4:

Yes. This is why the permit as written, Page 16 of 37, first sentence states that the temperature limit conditions begin after January 18, 2008.

Comment 5:

The temperature TMDL states that meeting the temperature standard is not expected until 2065, and that the only practical solutions are adaptive management strategies that restore shade and improves shade morphology.

Response 5:

The Upper Chehalis River Basin Total Maximum Daily Load Study does not repeal WAC 173-201A, filed November 25, 1992, which requires temperature limits.

Comment 6:

S5 (Solid Waste Control Plan) and G7 (Application for Permit Renewal) have submittal dates of January 1, 2009, which is 18 months before the permit expiration date of June 30, 2010. We request these date be changed to January 1, 2010, which is 180 days before the permit expires.

Response 6:

There is no regulatory limit on the interval between application submission and permit issuance, although 180 days was once put in the fact sheet as the minimum interval. Experience has shown that it is not possible to issue an individual permit (along with all the other permits expiring on the same day) in 180 days, most especially permits of the length and complexity of WestFarm's permit. It is Ecology's goal to issue permits on time, so that the submittal date for applications and accompanying submittals needs to be set several months ahead of schedule. Solid waste control plans and outfall evaluation plans are necessary to write a complete permit and are therefore scheduled to accompany the permit application.

Comment 7:

S7 in the Irrigation and Crop management Plan is required to be submitted "April 1, second year of operation". The first Irrigation and Crop Management Plan should be submitted by April 1, prior to land application.

Response 7:

The intent of the submission of an Irrigation and Crop Management Plan is to assess the performance of the irrigation operation using data derived from the previous year's operation. Given the crop proposed for this permit (grass hay), it is not believed necessary to submit a plan prior to the first year's operation. Should WestFarm wish to voluntarily submit a plan for its intentions for the first year's operation, it may certainly do so.

Comment 8:

To be consistent with the revision of the pH revisions, and to avoid any misunderstanding in permit compliance, the next to last sentence should read "Any excursions below 5.0 or above 10.0 are violations."

Response 8:

Yes. Corrected.

Comment 9:

Temperature Mixing Zone Limits and Temperature Limit Conditions are listed as Special Conditions S1.A.2 and S1.A.3. These should be deleted for the reasons discussed above.

Response 9:

These limits are taken from a TMDL reviewed by WestFarm and not protested or appealed before the TMDL issuance. See Responses 1 through 5 above.

Comment 10:

Condition S2.A: This condition requires continuous monitoring of temperature "In Plant." Because there is no end of pipe temperature limit for WestFarm Foods (see Ecology response to Comments to Comments below), then continuous temperature monitoring should not be required and we request this requirement be deleted. Special Condition S2.A. Temperature monitoring is inappropriate for 2 reasons. First, WestFarm will comply with the Dissolved Oxygen TMDL after Jan. 2008 and therefore there should no monitoring should be required. Secondly as stated above Kahle Jennings letter states that compliance with the DO TMDL shall constitute compliance with the Temperature TMDL and therefore there should be neither limits nor monitoring requirements.

Response 10:

On the single issue of whether there should be continuous in-plant monitoring, the permit is changed to eliminate this monitoring because it is unnecessary if in-river monitoring is conducted. This provision is eliminated. As for the rest of this comment, see responses 1 through 5 and 9 above.

Comment 11:

S2.B. Testing Schedule for Discharge to Ground lists units for Total Nitrogen as Lbs/acre. Testing should be performed using mg/L. Pounds per acre for Total Nitrogen should be evaluated and reported in the annual Irrigation and Crop Management Plan.

Response 11:

Correct. This item has been changed.

Comment 12:

Special Condition S8

Response 12:

See Response 6.

Comment 13:

Page 16 of the Fact Sheet lists incorrect Existing Limits. The correct Existing limits are what the fact sheet lists as proposed limits.

Response 13:

Correct. The correct comparison is listed below.

COMPARISON OF SURFACE WATER EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED JUNE 12, 2000.

Parameter	Existing Limits	Proposed Limits
Flow, Avg. Monthly, mgd	None	None
Flow, Max. Daily, mgd	None	None
BOD5, Avg. Monthly, lbs/day	75	75
BOD5, Max. Daily, lbs/day	95	95
TSS, Avg. Monthly, lbs/day	70 Interim, 75 Final	70 Interim, 75 Final
TSS, Max. Daily, lbs/day	92 Interim, 95 Final	92 Interim, 95 Final
Ammonia (N), Avg. Monthly, mg/l	3	3
Ammonia (N), Max. Daily, mg/l	6	6
pH, Avg. Monthly, S.U.	6 to 9	6 to 9
pH, Max. Daily, S.U.	6 to 9	6 to 9
Fecal Coliform, Avg. Monthly, No./100 ml	200	200
Fecal Coliform, Max. Daily, No./100 ml	400	400
Phosphorus, Avg. Monthly, mg/l	Best Management Practices	Best Management Practices
Phosphorus, Max. Daily, mg/l	Best Management	Best Management

Parameter	Existing Limits	Proposed Limits
	Practices	Practices
Total Residual Chlorine, Avg. Monthly, mg/l	N/A	N/A
Total Residual Chlorine, Max Daily, mg/l	Zero Detectable	Zero Detectable

Flow was eliminated since water is not a pollutant and no purpose is served in this case by limiting flow.

The final limits for TSS were increased in the Consent Decree.

Temperature limits have been added as is shown in S2.2 and S2.3.

The previous permit did not include ground water limits, so no comparison with existing limits is possible.

Comment 14:

When the Darigold (d.b.a. WestFarm Foods) wastewater Treatment plant was built, the effluent discharge pipe included a pipeline into the headworks of the Chehalis WWTP. The initial NPDES Permit for Darigold, issued in December 1983, and subsequent permits authorized discharge to the City WWTP. We did not discover until this permit review that authorization to discharge to the City WWTP had been deleted from this and other recent permits. Therefore, we request that language be included in this permit to allow discharge to the City of Chehalis WWTP, with the approval of the City of Chehalis.

Response 14:

The Department of Ecology has determined that, at the present time, discharge of effluent from WestFarm to the City of Chehalis WWTP would result in potential malfunction of the City of Chehalis WWTP. Consequently we have directed the City of Chehalis to not accept effluent from WestFarm. Ecology will not allow this discharge.

Comment 15:

Westfarm requests that vegetable oils be included in the list of approved products processed. We were unable to find Categorical Discharge Limits for vegetable oil in the Code of Federal Regulations. Therefore, because vegetable oils are very similar to anhydrous milkfat and butter, we recommend the same units be used for vegetable oils, as for butter.

Response 15. :

Agreed. The permit is corrected to include vegetable oils.